

What Is Claimed Is:

1. A diverter actuation system for causing the movement of a diverter having a diverter drive, the actuation system comprising:
 - a) a drive frame assembly connectable to the diverter;
 - b) a crank arm assembly connectable to the diverter drive;
 - c) a screw assembly connected to the drive frame assembly and including a screw connected to the crank arm assembly, the screw assembly configured to cause pivotal movement of the crank arm assembly; and
 - d) a drive motor connected to the screw assembly to cause rotational movement of the screw.
2. The actuation system as claimed in Claim 1 wherein the screw assembly further includes a rotatable rod attached to the drive motor, and wherein the screw is a ball screw attached around the rotatable rod such that as the drive motor rotates the rotatable rod, the ball screw moves linearly along the rotatable rod.
3. The actuation system as claimed in Claim 1 wherein the drive motor is a variable frequency motor.
4. The actuation system as claimed in Claim 1 further comprising a drive lockout assembly connected between the drive motor and the screw assembly to regulate movement of the screw.
5. The actuation system as claimed in Claim 1 wherein the diverter drive is a toggle tube, the drive frame assembly including a first frame plate and a second frame plate, the first frame plate and the second frame plate each including a toggle tube port for retaining the toggle tube therein.
6. The actuation system as claimed in Claim 5 wherein the drive frame assembly further includes a pivot pin rotatably affixed to the first drive frame plate and the second drive frame plate, the pivot pin further rotatably connected to the screw assembly.

7. The actuation system as claimed in Claim 6 wherein the crank arm assembly includes a first crank arm plate, a second crank arm plate and a toggle tube bushing, wherein the toggle tube bushing retains the toggle tube therein, the first crank arm plate and the second crank arm plate each including at a first end thereof a bushing port for retaining therein the toggle tube bushing, and wherein the first crank arm plate and the second crank arm plate each includes at a second end thereof attachment pins for attaching the first crank arm plate and the second crank arm plate to the screw.
8. The actuation system as claimed in Claim 7 wherein the screw assembly further includes a rotatable rod attached to the drive motor, and wherein the screw is a ball screw attached around the rotatable rod such that as the drive motor rotates the rotatable rod, the ball screw moves linearly along the rotatable rod.
9. The actuation system as claimed in Claim 8 wherein the screw assembly further includes a support plate for rotatably retaining the rotatable rod thereon, and wherein the support plate includes at a first end thereof a stanchion with two ports for retaining therein the pivot pin of the drive frame assembly.
10. The actuation system as claimed in Claim 9 further comprising a hub seal assembly for rotatably retaining the toggle tube to the drive frame assembly.
11. The actuation system as claimed in Claim 10 further comprising a drive lockout assembly connected between the drive motor and the screw assembly to restrict movement of the ball screw.